

## ABSTRACT OF THE DISCLOSURE

For automatic supply of an active substance to a patient's body (14) the supply rate (R) of an infusion pump (13) is evaluated. The supply rate is processed in a patient model (11) which receives the corresponding active substance data from a drug data bank (12). The patient model (11) calculates the concentration ( $CN_{actual}$ ) in the patient's body from the former values of the active substance supply. Said actual concentration value is fed to a concentration controller (17) which also receives a desired concentration value ( $CN_{desired}$ ). The infusion pump (13) is controlled as a function of the difference obtained. The desired concentration value can be manually set on an input device (19) or is supplied by another control portion which generates e. g. a BIS level or an adequate signal from the patient's EEG, the BIS level being a measure of the depth of anaesthesia.